

### REMARKS

Applicant respectfully requests reconsideration. Claims 1-19 were previously pending in this application, with claims 17-19 withdrawn from prosecution. By this amendment, Applicant is canceling claims 2, 5, 8, 17-19 without prejudice or disclaimer. Claims 1, 3, 4 and 7 have been amended. Support for the claim amendments can be found in claims 2, 5 and 8 as originally filed and in the specification, for example, on page 7, paragraph 0033. New dependent claims 20-37 have been added. Support for the new claims can be found in the specification. As a result, claims 1, 3, 4, 6, 7, 9-16 and 20-37 are pending for examination with claims 1, 4 and 7 being independent claims. No new matter has been added.

### Claim Objections

Claim 3 is objected to because there is no period at the end of the text.

Claim 3 has been amended to overcome this rejection.

### Rejections under 35 U.S.C. § 102

Claims 1, 2, 4, 5 and 7-16 are rejected under 35 U.S.C. §102(b) as being anticipated by Iba et al. (Am J. Pathol. 154(5):1489-501, May 1999). The Examiner alleges that Iba et al. disclose the distribution of ADAM 12 in 37 human carcinoma tissue samples detected by immunohistochemistry and that labeled monoclonal antibodies to human ADAM 12 were used in the tissue sample assays.

Without conceding the correctness of the rejection, and in the interest of expediting prosecution, Applicant has amended claims 1, 4 and 7 without prejudice. As amended, claims 1, 4 and 7 are not directed to tissue samples.

Accordingly, reconsideration and withdrawal of the rejection is respectfully requested.

Claims 1-16 are rejected under 35 U.S.C. §102(e) as being anticipated by Berger et al. (US Patent Application Publication No. 2003/0148410 A1).

Applicant respectfully traverses the rejection. Berger et al. does not provide an enabling disclosure of the instantly claimed subject matter and hence is not applicable as anticipatory prior art. For a reference to be an anticipatory reference under 35 U.S.C. § 102, the reference must

provide an enabling disclosure. According to MPEP §2121.01, “[i]n determining that quantum of prior art disclosure which is necessary to declare an applicant's invention 'not novel' or 'anticipated' within section 102, the stated test is whether a reference contains an 'enabling disclosure'... .” *In re Hoeksema*, 399 F.2d 269, 158 USPQ 596 (CCPA 1968). Berger et al. is directed to compositions and methods for detecting and characterizing colon cancer. Berger et al. has not shown that ADAM 12 can be detected in the biological samples as instantly claimed. Berger et al. lists several genes that may be used as biomarkers for the detection of colon cancer. However, Berger et al. does not provide any specific teaching that ADAM 12 is a secreted protein that can be detected in biological samples as instantly claimed. Consequently, the cited reference does not provide an enabling disclosure for the detection of ADAM 12 in the biological samples as instantly claimed.

Accordingly, reconsideration and withdrawal of the rejection is respectfully requested.

Claims 1, 2, 4, 5 and 7-16 are rejected under 35 U.S.C. §102(a) as being anticipated by Le Pabic et al. (Hepatology 37: 1056-1066, published December 2003). The Examiner asserts that “Le Pabic et al. discloses a method of detecting steady-state of ADAM 12 mRNA levels and mRNA expression in liver tissue samples including hepatocellular carcinomas, liver metastases from colorectal cancers, focal nodular hyperplasia and nontumoral livers”.

Without conceding the correctness of the rejection, and in the interest of expediting prosecution, Applicant has amended claims 1, 4 and 7 without prejudice. As currently amended, claims 1, 4 and 7 are not directed to tissue samples.

Accordingly, reconsideration and withdrawal of this rejection is respectfully requested.

#### Rejections under 35 U.S.C. § 103

Claims 1-16 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Iba et al. (Am J. Pathol. 154(5):1489-501, May 1999), and further in view of Berger et al. (U.S. Patent Application Number 2003/0148410 A1). The Examiner asserts that “[i]t would have been *prima facie* obvious to one of ordinary skill in the art at the time the claimed invention was made to combine the teachings of Iba et al. and Berger et al. to assay a plethora of biological samples for ADAM 12, particularly a urine sample”.

Applicant respectfully traverses the rejection. The teachings of Iba et al. and Berger et al. do not provide a reason or a motivation for one of ordinary skill in the art to combine the references in the manner suggested by the Examiner. According to Iba et al. "ADAMs comprise a family of membrane-anchored cell surface proteins with a putative role in cell-cell and/or cell-matrix interactions". Furthermore, Iba et al. teach that "in addition to the expected membrane-anchored form, designated ADAM 12-L, an alternatively spliced, secreted form exists, designated ADAM 12-S". However, when the expression of both forms of ADAM 12 were measured, it was found that ADAM 12-S (the secreted form of the protein) was present in both normal and tumor tissue. ADAM 12-L (the membrane-anchored form), on the other hand, was present at higher levels in breast carcinoma than normal breast tissue (see page 1493, second column). In view of these teachings, a person of skill in the art would not have a reason or a motivation, let alone have a reasonable expectation of success, to measure the expression levels of ADAM 12-S in a biological sample for the detection and/or prognosis of cancer because ADAM 12-S is present in both normal and tumor tissue. Instead, any method directed to the detection and characterization of cancer would require measuring the levels of the membrane-bound ADAM 12-L in the tissue. Furthermore, because ADAM12-L is membrane-bound, a skilled artist would not have any expectation of success in detecting ADAM12-L in the biological samples of the instant claims.

Accordingly, reconsideration and withdrawal of this rejection is respectfully requested.

**CONCLUSION**

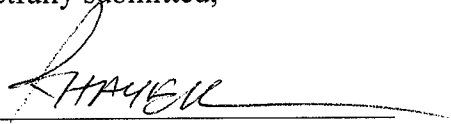
In view of the above amendment, applicant believes the pending application is in condition for allowance. A Notice of Allowance is respectfully requested. The Examiner is requested to call the undersigned at the telephone number listed below if this communication does not place the application in condition for allowance.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 23/2825.

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Respectfully submitted,

By



Roque El-Hayek  
Registration No.: 55,151  
WOLF, GREENFIELD & SACKS, P.C.  
Federal Reserve Plaza  
600 Atlantic Avenue  
Boston, Massachusetts 02210-2206  
617.646.8000

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